

REMARKS

This application is a divisional of Appl. No. 09/771,203 filed January 26, 2001 (“the parent application”). During prosecution of the parent application, method Claims 1 – 16 were elected in response to a restriction requirement. The claims presented in this divisional application are computer-related apparatus claims that correspond to the method claims allowed in the parent application. Independent Claims 17 and 21 both recite a computer-readable program that includes instructions for depositing a thin film on a substrate in accordance with specified limitations. The amendments to the claims made herein conform to limitations considered in the parent application.

It is believed that the pending claims are allowable based on the allowance of Claim 1 of the parent application pursuant to MPEP 2106 and the U.S. Patent and Trademark Office’s published Examination Guidelines for Computer-Related Inventions (“EGCRI”). With respect to computer-related inventions, EGCR I §IV.B.2.(a)(i) clarifies that when an apparatus claim encompasses “*any and every* computer implementation of a process, when read in light of the specification, the claim should be examined on the basis of the underlying process” (emphasis in original). That section continues with an example of how to recognize such an apparatus claim. It will:

- define the physical characteristics of a computer or computer component exclusively as functions or steps to be performed on or by a computer, and
- encompass *any and every* product in the state class (e.g., computer, computer-readable memory) *configured in any manner* to perform that process. (*Id.*)

Application of the standard is illustrated in a hypothetical provided in EGCR I §IV.B.2.(a)(iii) by describing the subject matter to be recited in the patent specification. Specifically, “[t]he disclosure [should state] ... that it would be a matter of routine skill to select an appropriate conventional computer system and implement the claimed process on that computer system. The disclosure [need] not have specific disclosure that corresponds to the [exemplary] limitations recited in the claim (i.e., no specific software or logic circuit).” Under

such circumstances, the “[c]laim encompasses any computer embodiment of process claim [and] patentability stands or falls with process claim” (*id.*).

In the present application, Claims 17 and 21 define physical characteristics of computer components as functions performed by a computer. Allowed Claim 1 of the parent application reads:

1. A method for depositing a film on a substrate in a process chamber, the method comprising:
 - (a) flowing a process gas comprising a plurality of precursor gases suitable for forming a plasma into the process chamber; and
 - (b) generating a plasma from the process gas to deposit the thin film on the substrate,wherein the plurality of precursor gases are flowed into the process chamber such that the thin film is deposited at a center of the substrate more rapidly than at an edge of the substrate.

In addition, the specification does not include specific software, i.e. programming code recited to define the aforementioned functions. Rather, it states that computer code executed by a processor “can be written in any conventional computer-readable programming language” (Application, p. 12, ll. 15 – 16), thus indicating that it would be a matter of routine skill to select an appropriate conventional computer system and implement the claimed process on the computer system. Thus, the computer-readable storage medium defined by Claim 17 and the system defined by Claim 21 encompass any and every product in the class configured in any manner to perform the process recited in allowed Claim 1 of the parent application. The allowance of that claim is thus believed also to render Claims 17 and 21 allowable. The dependent claims are believed to be allowable by virtue of their dependence from allowable independent claims.

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Preliminary Amendment

PATENT

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,



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